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Sequence Listing was accepted.
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217-9197 (toll free).
Reviewer: Anne Corrigan
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<110>   Pohl, Jens
        Bechtold, Rolf
        Kruse, Michael

<120>   Osteoinductive Materials

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<140>   10550958
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<150>   PCT/EP04/003238
<151>   2004-03-26

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gtctggatac gagagcattt ccactatggg actggataca aacacacacc cggcagactt   480

caagagtctc agactgagga gaaagccttt ccttctgctg ctactgctgc tgccgctgct   540

tttgaaagtc cactcctttc atggtttttc ctgccaaacc agaggcacct ttgctgctgc   600

cgctgttctc tttggtgtca ttcagcggct ggccagagg atg aga ctc ccc aaa   654
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ctc ctc act ttc ttg ctt tgg tac ctg gct tgg ctg gac ctg gaa ttc   702
Leu Leu Thr Phe Leu Leu Trp Tyr Leu Ala Trp Leu Asp Leu Glu Phe
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atc tgc act gtg ttg ggt gcc cct gac ttg ggc cag aga ccc cag ggg   750
Ile Cys Thr Val Leu Gly Ala Pro Asp Leu Gly Gln Arg Pro Gln Gly
                 25   30   35

acc agg cca gga ttg gcc aaa gca gag gcc aag gag agg ccc ccc ctg   798
Thr Arg Pro Gly Leu Ala Lys Ala Glu Ala Lys Glu Arg Pro Pro Leu
             40   45   50

gcc cgg aac gtc ttc agg cca ggg ggt cac agc tat ggt ggg ggg gcc   846
Ala Arg Asn Val Phe Arg Pro Gly Gly His Ser Tyr Gly Gly Gly Ala
     55   60   65

acc aat gcc aat gcc agg gca aag gga ggc acc ggg cag aca gga ggc   894
Thr Asn Ala Asn Ala Arg Ala Lys Gly Gly Thr Gly Gln Thr Gly Gly
70   75   80   85

ctg aca cag ccc aag aag gat gaa ccc aaa aag ctg ccc ccc aga ccg   942
Leu Thr Gln Pro Lys Lys Asp Glu Pro Lys Lys Leu Pro Pro Arg Pro
                 90   95   100

ggc ggc cct gaa ccc aag cca gga cac cct ccc caa aca agg cag gct   990
Gly Gly Pro Glu Pro Lys Pro Gly His Pro Pro Gln Thr Arg Gln Ala
                 105   110   115

aca gcc cgg act gtg acc cca aaa gga cag ctt ccc gga ggc aag gca   1038
Thr Ala Arg Thr Val Thr Pro Lys Gly Gln Leu Pro Gly Gly Lys Ala
             120   125   130

ccc cca aaa gca gga tct gtc ccc agc tcc ttc ctg ctg aag aag gcc   1086
Pro Pro Lys Ala Gly Ser Val Pro Ser Ser Phe Leu Leu Lys Lys Ala
     135   140   145

agg gag ccc ggg ccc cca cga gag ccc aag gag ccg ttt cgc cca ccc   1134
Arg Glu Pro Gly Pro Pro Arg Glu Pro Lys Glu Pro Phe Arg Pro Pro
150   155   160   165

ccc atc aca ccc cac gag tac atg ctc tcg ctg tac agg acg ctg tcc   1182
Pro Ile Thr Pro His Glu Tyr Met Leu Ser Leu Tyr Arg Thr Leu Ser
                 170   175   180

gat gct gac aga aag gga ggc aac agc agc gtg aag ttg gag gct ggc   1230
Asp Ala Asp Arg Lys Gly Gly Asn Ser Ser Val Lys Leu Glu Ala Gly
             185   190   195

ctg gcc aac acc atc acc agc ttt att gac aaa ggg caa gat gac cga   1278
Leu Ala Asn Thr Ile Thr Ser Phe Ile Asp Lys Gly Gln Asp Asp Arg
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    215                 220             225


gag aag gat ggg ctg ctg ggg gcc gag ctg cgg atc ttg cgg aag aag        1374
Glu Lys Asp Gly Leu Leu Gly Ala Glu Leu Arg Ile Leu Arg Lys Lys
230                 235             240             245


ccc tcg gac acg gcc aag cca gcg gcc ccc gga ggc ggg cgg gct gcc        1422
Pro Ser Asp Thr Ala Lys Pro Ala Ala Pro Gly Gly Gly Arg Ala Ala
                250             255             260


cag ctg aag ctg tcc agc tgc ccc agc ggc cgg cag ccg gcc tcc ttg        1470
Gln Leu Lys Leu Ser Ser Cys Pro Ser Gly Arg Gln Pro Ala Ser Leu
                265             270             275


ctg gat gtg cgc tcc gtg cca ggc ctg gac gga tct ggc tgg gag gtg        1518
Leu Asp Val Arg Ser Val Pro Gly Leu Asp Gly Ser Gly Trp Glu Val
            280             285             290


ttc gac atc tgg aag ctc ttc cga aac ttt aag aac tcg gcc cag ctg        1566
Phe Asp Ile Trp Lys Leu Phe Arg Asn Phe Lys Asn Ser Ala Gln Leu
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tgc ctg gag ctg gag gcc tgg gaa cgg ggc agg gcc gtg gac ctc cgt        1614
Cys Leu Glu Leu Glu Ala Trp Glu Arg Gly Arg Ala Val Asp Leu Arg
310             315             320             325


ggc ctg ggc ttc gac cgc gcc gcc cgg cag gtc cac gag aag gcc ctg        1662
Gly Leu Gly Phe Asp Arg Ala Ala Arg Gln Val His Glu Lys Ala Leu
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ttc ctg gtg ttt ggc cgc acc aag aaa cgg gac ctg ttc ttt aat gag        1710
Phe Leu Val Phe Gly Arg Thr Lys Lys Arg Asp Leu Phe Phe Asn Glu
            345             350             355


att aag gcc cgc tct ggc cag gac gat aag acc gtg tat gag tac ctg        1758
Ile Lys Ala Arg Ser Gly Gln Asp Asp Lys Thr Val Tyr Glu Tyr Leu
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ttc agc cag cgg cga aaa cgg cgg gcc cca ctg gcc act cgc cag ggc        1806
Phe Ser Gln Arg Arg Lys Arg Arg Ala Pro Leu Ala Thr Arg Gln Gly
    375             380             385


aag cga ccc agc aag aac ctt aag gct cgc tgc agt cgg aag gca ctg        1854
Lys Arg Pro Ser Lys Asn Leu Lys Ala Arg Cys Ser Arg Lys Ala Leu
390             395             400             405


cat gtc aac ttc aag gac atg ggc tgg gac gac tgg atc atc gca ccc        1902
His Val Asn Phe Lys Asp Met Gly Trp Asp Asp Trp Ile Ile Ala Pro
                410             415             420


ctt gag tac gag gct ttc cac tgc gag ggg ctg tgc gag ttc cca ttg        1950
Leu Glu Tyr Glu Ala Phe His Cys Glu Gly Leu Cys Glu Phe Pro Leu
                425             430             435


cgc tcc cac ctg gag ccc acg aat cat gca gtc atc cag acc ctg atg        1998
Arg Ser His Leu Glu Pro Thr Asn His Ala Val Ile Gln Thr Leu Met
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aac tcc atg gac ccc gag tcc aca cca ccc acc nnn tgt gtg ccc acg        2046
Asn Ser Met Asp Pro Glu Ser Thr Pro Pro Thr Xaa Cys Val Pro Thr
    455                   460                   465

cgg ctg agt ccc atc agc atc ctc ttc att gac tct gcc aac aac gtg        2094
Arg Leu Ser Pro Ile Ser Ile Leu Phe Ile Asp Ser Ala Asn Asn Val
470                   475                   480                   485

gtg tat aag cag tat gag gac atg gtc gtg gag tcg tgt ggc tgc agg        2142
Val Tyr Lys Gln Tyr Glu Asp Met Val Val Glu Ser Cys Gly Cys Arg
                  490                   495                   500

tagcagcact ggccctctgt cttcctgggt ggcacatccc aagagcccct tcctgcactc        2202

ctggaatcac agaggggtca ggaagctgtg gcaggagcat ctacacagct tgggtgaaag        2262

gggattccaa taagcttgct cgctctctga gtgtgacttg ggctaaaggc ccccttttat        2322

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gactcagccc accatttctc ctcacctggg ccttctcagc ctctggactc tcctaagcac        2502

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<220>
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Leu Asp Leu Glu Phe Ile Cys Thr Val Leu Gly Ala Pro Asp Leu Gly
            20                  25                  30
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Gln Arg Pro Gln Gly Thr Arg Pro Gly Leu Ala Lys Ala Glu Ala Lys
        35   40   45

Glu Arg Pro Pro Leu Ala Arg Asn Val Phe Arg Pro Gly Gly His Ser
        50   55   60

Tyr Gly Gly Gly Ala Thr Asn Ala Asn Ala Arg Ala Lys Gly Gly Thr
65   70   75   80

Gly Gln Thr Gly Gly Leu Thr Gln Pro Lys Lys Asp Glu Pro Lys Lys
                85   90   95

Leu Pro Pro Arg Pro Gly Gly Pro Glu Pro Lys Pro Gly His Pro Pro
                100   105   110

Gln Thr Arg Gln Ala Thr Ala Arg Thr Val Thr Pro Lys Gly Gln Leu
        115   120   125

Pro Gly Gly Lys Ala Pro Pro Lys Ala Gly Ser Val Pro Ser Ser Phe
        130   135   140

Leu Leu Lys Lys Ala Arg Glu Pro Gly Pro Pro Arg Glu Pro Lys Glu
145   150   155   160

Pro Phe Arg Pro Pro Pro Ile Thr Pro His Glu Tyr Met Leu Ser Leu
                165   170   175

Tyr Arg Thr Leu Ser Asp Ala Asp Arg Lys Gly Gly Asn Ser Ser Val
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Lys Leu Glu Ala Gly Leu Ala Asn Thr Ile Thr Ser Phe Ile Asp Lys
        195   200   205

Gly Gln Asp Asp Arg Gly Pro Val Val Arg Lys Gln Arg Tyr Val Phe
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Asp Ile Ser Ala Leu Glu Lys Asp Gly Leu Leu Gly Ala Glu Leu Arg
225   230   235   240

Ile Leu Arg Lys Lys Pro Ser Asp Thr Ala Lys Pro Ala Ala Pro Gly
                245   250   255

Gly Gly Arg Ala Ala Gln Leu Lys Leu Ser Ser Cys Pro Ser Gly Arg

Gln Pro Ala Ser Leu Leu Asp Val Arg Ser Val Pro Gly Leu Asp Gly
        275   280   285

Ser Gly Trp Glu Val Phe Asp Ile Trp Lys Leu Phe Arg Asn Phe Lys
    290   295   300

Asn Ser Ala Gln Leu Cys Leu Glu Leu Glu Ala Trp Glu Arg Gly Arg
305   310   315   320

Ala Val Asp Leu Arg Gly Leu Gly Phe Asp Arg Ala Ala Arg Gln Val
            325   330   335

His Glu Lys Ala Leu Phe Leu Val Phe Gly Arg Thr Lys Lys Arg Asp
        340   345   350

Leu Phe Phe Asn Glu Ile Lys Ala Arg Ser Gly Gln Asp Asp Lys Thr
        355   360   365

Val Tyr Glu Tyr Leu Phe Ser Gln Arg Arg Lys Arg Arg Ala Pro Leu
    370   375   380

Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala Arg Cys
385   390   395   400

Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp Asp Asp
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Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu Gly Leu
            420   425   430

Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His Ala Val
        435   440   445

Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro Pro Thr
    450   455   460

Xaa Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe Ile Asp
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Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val Val Glu
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Ser Cys Gly Cys Arg
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